SPECIAL ORDINANCE NO. S-213-87

AN ORDINANCE approving City Utilities Purchase Order #09126, by the City of Fort Wayne, Indiana, by and through its Department of Purchasing and Hewlett Packard, for the Water Pollution Control Plant.

NOW, THEREFORE, BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF FORT WAYNE, INDIANA:

SECTION 1. That City Utilities Purchase Order #09126, between the City of Fort Wayne, by and through its City Utilities, and the Department of Purchasing with Hewlett Packard, for the Water Pollution Control Plant, respectfully for:

the purchase of a Gas Chromatograph/Mass Spectrometer System, per the specifications in Reference #3235, for the Water Pollution Control Plant;

involving a total cost of Two Hundred Thirty-Seven Thousand Seven Hundred Fifty-Eight and 24/100 Dollars (\$237,758.24), all as more particularly set forth in said Purchase Order, which is on file in the Office of the Department of Purchasing, and is by reference incorporated herein, made a part hereof, and is hereby in all things ratified, confirmed and approved, subject to financing through the City Equipment Lease Program as provided for in Ordinance S-174-84.

SECTION 2. That this Ordinance shall be in full force and effect from and after its passage, and any and all necessary approval by the Mayor.

Bruce O. Bexberger, City Attorney

AND LEGALITY

APPROVED AS TO FORM

Councilmember

seconded by first time in full and on motion by	11
by title and cally adopted read the	second time
Plan Commission for recommendation) and Public Hearing to be held due legal notice, at the Council Chambers, City-County Public Hearing	and the Cit
indiana, on, the, the	Fort Way:
g'clock	day of .M.,E.
DATE: 7-28-89 Sandra for Leur	redy
SANDRA E. KENNEDY, CITY	CLERK
Read the third time in full and on motion by seconded by and duly adopted, place passage. PASSED (LOST) by the following vote:	ed on its
AYES NAYS ARSTALVED	
TOTAL VOTES 8	TO-WIT:
BRADBURY	
BURNS	
EISBART	
GiaQUINTA	
GiaQUINTA CHENRY	
REDD	
SCHMIDT	
STIER	
TALARICO	
DATE: 8-11-87 - Sandra E. Kenne	edy
SANDRA E. KENNEDY, CITY	CLERK
Passed and adopted by the Common Council of the City of	Fort
Wayne, Indiana, as (ANNEXATION) (APPROPRIATION) (CENERAL) (SPECIAL) (ZONING MAP) ORDINANCE (RESOLUTION) NO	
on the	3-87.
on the day of	987,
Andre & Kennedy Mark & (SEAL)	nla
PRESIDING OFFICER	
on the day of, 19	
at the hour of // o'clock o'clock .M., E.S.T.	87.
o'clock M., E.S.T.	
SANDRA E. KENNEDY CLEY	edy
Approved and signed by me this 13th.	LEHK
Approved and signed by me this 13th day of August 19 87, at the hour of o'clock P.M. E.S.	,
o'clock M., E.S.	T.
WIN War In	
MIN MUSES. IR MAYOR	

Quote #3235 Opens: July 8, 1987 at 4:00 PM Gas Chromatograph/Mass Spectrometer

WPP

\$263,768.00 Finnigan Corporation

\$249,100.00 V.G. Instruments

\$237,718.24 Hewlett Packard

FORM 4.FV.SPO-2

REQUEST FOR QUOTATION City of Fort Wayne

DEPARTMENT OF PURCHASES NUMBER ONE EAST MAIN STREET ROOM 350 FORT WAYNE, IN 46802

RECEIVED

PLEASE INDICATE THIS NUMBER ON ALL CORRESPONDENCE

QUOTE 003235

DATE OF REQUEST

Quotations

Sealed Bids

WILL BE RECEIVED AT THIS OFFICE UNTIL

PAGE

TO



The Contractor and his sub-contractors, if any, shall not discriminate against any employee or applicant for employment, to be employed in the performance of this contract, with respect to his hire, tenure, conditions or privileges of employment or any matter directly or indirectly related to employment, because of his race, color, religion, national origin or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

REQUEST FOR QUOTATION THIS IS NOT AN ORDER

PLEASE QUOTE BELOW LOWEST PRICES, WHICH MUST INCLUDE ALL DELIVERY CHARGES (INCLUDING FREIGHT, PARCEL POST AND EXPRESS) UNLESS OTHERWISE SPECIFIED, FOR PURCHASING MERCHANDISE OR SERVICE DESCRIBED BELOW.

QUOTATIONS WILL BE OPENED IN ACCORDANCE TO RULES AND REGULATIONS ON THE REVERSE SIDE OF THIS SHEET. RESPECTFULLY,

TITY UNIT	DESCRIPTION	UNIT PRICE	TOTAL
		\$ 263,768.	\$ 263,768
	YSTEM PER ATTACHED SPECIFIC ATIONS.	Please see e Finnigan MAT	nclosed
		#16015 for f	urther deta
	D PURGEABLE TALOCARBONS, EPA METHOD 601 D PURGEABLE ORGANICS, EPA METHOD 602		
	SFFLUENT, D) DIGESTED SLUDGE.		
	XX Finnigan MAT		
*	40DEL NO. 4515B		
		PUS	703
	COST-SATERIAL ONLY & N/A	CHA	RECEIVED
	N/A	2 %	13
	PRICES MUST BE HELD FIRM FOR THREE (3) MONTHS	6, 3	ED
		35	
	F YOU DO NOT WISH TO QUOTE ON THE ABOVE,		
	TOTAL PRICE \$263,768 DELIVERY 90-120 F.O.B. Destin	ation	

THIS IS ONLY AN INVITATION TO QUOTE AND NOT AN ORDER. THE ABOVE QUOTES ARE SUBMITTED IN ACCORDANCE WITH THE REGULATION ON THE REVERSE SIDE OF THIS SHEET.

DATE: 07/06/87

SIGNATURE OF BIDDER: Dennis Orr

SYSTEM SPECIFICATIONS

Provide a Gas Chromatograph/Mass Spectrometer/Data System, consisting of the following components and specifications:

A. GAS CHROMATOGRAPH

- Must have all parameters controlled via the data system; must be able to change GC parameters during acquisition.
- 2. Must have multilinear temperature programming capability in increments as low as 0.1 C/min., and be able to store and recall multiple sets of temperature programming profiles and instructions.
- 3. Must be capable of subambient temperature programming using liquid nitrogen as a coolant.
- 4. The column oven temperature must have an operating range of -50°C to 350°C.
- 5. Must have continuous digital temperature readout with data system output.
- 6. Must have dual injector design, with ability to add optional packed column injector.
- 7. Must have independently heated Grob type split/splitless injector for glass or fused silica capillary columns, capable of accepting 1-5 ul of sample in splitless mode with 2 mm and 4 mm glass inserts and split ratios of up to 100:1 Injector must have computer controlled split and sweep valves with manual override.
- Must have the following options: automatic GC sample injection, on-column injector, injector and glass jet separator for packed column and conventional GC detectors.

B. GC/MS INTERFACE

- 1. Must have an independently heated interface oven which is operable to 350°C via computer control. Must have digital temperature readout.
- 2. Direct coupling interface must allow fused silica capillary column to terminate within 1 mm of the ion source ion volume. Must provide glass-lined interface for glass capillary columns.
- 3. Must be able to accept an all-glass jet separator as an optional accessory for packed column operation.
- 4. Optional jet separator must have computer or manually controlled solvent divert valve.

C. MASS SPECTROMETER

1. Mass analyzer

- a. Any analyzer type is acceptable provided the combined GC/MS/DS meets all operating performance specifications and features.
- b. Must have a continuous operable mass range of at least 4-1000 amu.
- c. Must have resolution (full width at half of maximum peak height) adjustable to 2500 at m/z 1000, with 2 selectable preset resolutions.
- d. Tuning must be separately adjustable for positive and negative ion (optional) detection in both chemical ionization (CI) and electron impact (EI) ionization modes.
- e. If a quadrupole type analyzer is offered, the RF potential must be at least 6 kV peak to peak at a frequency of greater than 2 MHz.
- f. Must be able to achieve the following scan rates:
 - 1. data system--minimum of 2,000 amu with 10 sampling intervals per amu.
 - oscilloscope--if an oscilloscope is provided, scan rate of 2,000 amu minimum, and 10 sampling intervals per amu.
- g. The system must be able to maintain a mass position stability (after warm-up) of better than ±0.05 amu over an 8 hour period.

2. Oscilloscope Display

- a. The oscilloscope must provide a real time display of data from the mass spectrometer in both manual and data system controlled scan modes.
- b. Must be able to simultaneously display either the spectrum or total ion current of 2 independent mass ranges on a split screen.
- must be able to display spectrum of entire or any portion of mass range from 4 to 1000 amu in manual operation.
- d. Must be able to display a single specific ion mass marker at any position from 4 to 1000 amu, and a direct reading multiple mass marker indicating every 1, 10 and 100 amu value.

3. Digital Display Meter

- a. Must include a four-place digital meter for accurate display of analyzer parameters.
- b. Must function as a mass indicator with ±0.1 amu mass accuracy regardless of scan speed. Must display mass marker, first mass and last mass values.
- c. Must display filament emission current, electron multiplier voltage, electron energy, lens voltages, and quadrupole offset voltage, if analyzer is a quadrupole.

4. Ion Source

a. Must be a switchable, dual CI/EI source with interchangeable ion volumes.

b. Ion source tuning parameters must be separately adjustable and capable of being preset for optimized EI and CI operation.

c. Must have beam collimating ion source magnets for opti-

mum EI operation.

d. Ion source temperature must be reproducibly controlled to ±1% in steps of 10 from 80°C to 190°C.

e. Must be able to operate in CI mode with methane, isobutane or ammonia reagent gases. The selection of reagent gas must be independent of the GC carrier gas.

f. The internal source pressure must be continuously displayed

on a digital meter during setup and operation.

g. Must have filament on/off control via the data system and manually.

h. Must have operable electron energy range of 10 to 190 V and emission current of 0 to 2 mA regulated to ±0.1% over four hours.

i. Must accept a solids sample probe, direct exposure probe and moving belt or thermospray LC/MS interface as options.

j. Must have capability to operate with optional discharge

ionization systems.

5. Detector

a. Must have off-axis continuous dynode electron multiplier with variable voltages from 400 to 3000 V, and 3 kV conversion dynode. On/off control of electron multiplier must be computer and manually controllable.

b. An optional mode of operation must be able to alternately detect positive and negative ions during a

single analysis.

6. Direct Probe Sample Inlet

a. Must include programmable solid sample probe heatable from subambient to 350°C via ballistic and multilinear programming.

b. Must be capable of accepting a direct exposure probe

operable in EI and CI modes of operation.

c. Must include a digital temperature readout and must be able to store temperature profiles as part of the data files.

D. VACUUM SYSTEM

- 1. Must have differential pumping for analyzer and ion source regions with two turbomolecular pumps with at least 330 l/sec. capacity each, capable of accepting of at least 2 cu.cm/min. helium via a direct connection of a capillary column. (Please indicate on quote for diffusion pumps also, if diffusion pumps are standard, and state manufacturer's recommendation for the optimum pumping system for the GC/MS system.)
- 2. Must have digital meter readouts for both high vacuum and forepressure regions from linearized Pirani gauges and for all temperature controlled zones.
- 3. Must provide for simultaneous connections of at least three CI reagent gases plus a GC carrier gas.
- 4. Must be able to change chemical ionization reagent gas selection, routing and line evacuation by push-button controls.
- 5. Must provide for automatic routing of any of the three CI reagent gas lines for use as the GC carrier gas or CI makeup gas.
- 6. Must include separate inlet for introduction of calibration sample and be controlled by the data system or manually.

E. DATA SYSTEM

- 1. Minicomputer
 - a. Must have at least 64 kilobytes of semiconductor memory.
 - b. Must be capable of accepting and operating the following standard and/or optional interfaces:
 - 1. Mass spectrometer.
 - Winchester-type disk drive with streaming tape, or removable cartridge disk drive.
 - 3. Printer/plotter.
 - 4. Keyboard graphic video display terminal.
 - 5. Second keyboard video display terminal.
 - 6. GC autosampler.
 - 7. Liquid Sample Concentrator (LSCII or LSCIII) and automatic laboratory sampler for LSC.
- 2. Mass Spectrometer Interface
 - a. 12-bit A/D converter with 25 us sampling time (40 kHz data rate) for data acquisition.
 - b. 16-bit D/A converter for scan control.
 - c. Scan speed of a mimimum of of 2000 amu/sec over any mass range, with acquisition of at least 10 data points per amu.

3. On-Line Storage Media

a. Winchester-type disk drive with minimum of 70 megabyte capacity.

b. Cartridge type streaming tape drive with at least 20

megabyte capacity.

- c. Optimal 9-track tape drive, and 32 or 96 megabyte cartridge module disk drive.
- 4. Keyboard Video Display Terminal High resolution video display terminal with detachable keyboard.

5. Printer/Plotter

- a. Minimum 150 line-per-minute impact printer/plotter with internal diagnostics.
- b. Must be capable of operating in either 8 1/2 in. x 11 in., 11 in. x 15 in. or 35 mm slide format on fanfold paper.

6. Software

a. Priority interrupt foreground/background system for true simultaneous data acquisition and processing.

b. Ability to acquire and plot GC or solids probe temperature profile in real-time during date acquisition.

c. Ability to acquire profile or centroid data calculated to 4 decimal places.

d. User definable mass range, scan speed, ADC threshold, peak width and sampling interval (number of measurements per peak.)

e. Qualitative and quantitative selected ion monitoring for up to 25 ions or mass ranges. Sets of mass ranges can stored on disk or tape and recalled for later use.

f. Calibration tables for PFTBA, PFK and tris (perfluorononyl)-s-triazine, and ability to create other calibration tables as required for either positive or negative ions.

g. All data files including those currently being acquired may be processed, and data files previously acquired may

be deleted during acquisition.

h. All data processing programs including library search and automated processing may be used during data acquisition.

i. Ability to change acquisition parameters during current

acquisition.

j. Mass spectral data may be displayed/copied as tabular lists and selectively labeled bar graphs. Linear or manual background subtraction are standard. X and Y axis of plots are user definable.

k. Chromatograph data (reconstructed ion chromatograms and mass chromatograms) may be displayed/copied as selectively labeled graphs. Manual or automated peak integration is available. X and Y axis of plots are user definable.

- 1. Automated date enhancement (background removal and chromatographic resolution enhancement) can be performed on complete date files, individual regions or single scans.
- m. Library search capabilities include the 42,000 compound NBS/NTH/EPA spectra library distributed by the National Bureau of Standards. In addition, the user can add to the existing library or create his own separate libraries. Library entries may be retrieved as spectral plots, difference plots, and tabular lists. Library data base can be searched on the basis of mass/intensity, molecular formula or mulecular weight. A reverse search is also included for location of specific compounds within a complex chromatogram.

n. Must have an automated intelligent data processing language that allows branched or unbranched linking of all data processing programs for unattended processing

and output.

o. A program that determines elemental composition, based upon accurate mass assignment, must be included for the molecular ion and all fragment ions. User can control atomic formula limits, bonding restrictions, error tolerances, isotope compositions, minimum intensities and mass range. Internal standard peaks may be used to increase mass assignment accuracy.

p. Software diagnostics for interscan stability, mass peak shape, mass interpolation error, dynamic resolution,

scan linearity and hardware status.

q. Software supports data communications which enabled transfer of files to and from other data systems and operation of programs from remote data systems (via optional MODEM).

r. Quantitation package with the following features:

- Quantitation based on peak height or area measurements.
- Quantitation by internal or external standard technique.

3. Response factors may be based on single, multipoint

or user-defined calibration data.

4. Multipoint data of 1 to 100 points can be averaged or treated in linear or quadratic regression analyses to obtain response curves for quantitation of unknowns.

F. GENERAL ITEMS FOR SYSTEM

1. Initial supply of spare parts and consumables for installation and confirmation of standard performance specifications.

2. System installation.

- 3. One set of operator and maintenance manuals.
- 4. On-site operational training by service engineer during installation.
- 5. 90-day warranty commencing at date of acceptance.

G. SYSTEM PERFORMANCE SPECIFICATIONS

1. EI: Upon injection of 100 pg of methyl stearate in solvent into a fused silica capillary column, the system will produce a minimum of 10:1 signal-to-noise ration for the 298.3 molecular ion when scanned from 60 to 310 u in 0.5 s.

2. CI: Upon injection of 100 pg of benzophenone in solvent into a fused silica capillary column, the system will produce a minimum of 25:1 signal-to-noise ration for the 183.1 protonated molecular ion when scanned from 90 to 240 amu in 0.5 seconds, using methane as the reagent gas.

H. ACCESSORIES

- 1. Refrigerated recirculating water cooler for operation on 208 VAC 60 hr.
- Buck/Boost transformers (2 reg) for line voltage of 208 VAC.
- 3. An automatic sampling device for syringe injection of liquid. Sample rack to be of right-hand carousel design containing 60 sample vials, including mounting hardware.
- 4. Pulse Positive Ion/Negative Ion Chemical Ionization including electronics for generation and collections of both positive and negative ions.
- 5. Spare Kits for analyzer, Gas Chromatograph, Mass Spectrometer and preventative maintenance.
- 6. Regulators for Isobutane, Methane, Ammonia and Liquid Nitrogen.
- Heated Carrier gas scrubber.
- 8. 1/4-1/8" packed column conversion kit.
- 9. Packed column kit including injector, carrier gas control and all glass separator.
- 10. On-column injector which accepts 0.20 mm to 0.32 ID glass or fused silica capillary columns.
- 11. Data link software package for IBM PC/XT/AT.
- 12. Q/A Data Master software.
- 13. GC/MS/DS operator training for persons.
- 14. Request the following to be included in the quotation:
 - a. data system, basic operator course.
 - b. data system, quantitation course.
 - c. data system, electronics board course.

I. WARRANTY

Supplier shall warrant all materials and equipment furnished for a period of one (1) year from the date of acceptance by the owner.



355 River Oaks Parkway San Jose, CA 95134-1991 (408) 433-4800 TELEX: 470745 TELEFAX: (408) 433-4823

July 06, 1987

City of Fort Wayne Department of Purchases Number One East Main Street Fort Wayne, Indiana 46802

Attn: Mr. Neil Wisler
Re: RFQ No. 003235, Due: 07/08/87 at 4:00 pm

Dear Mr. Wisler:

For our representative Mr. Ron Skinner, we are pleased to submit our quotation for a Finnigan MAT Model 4515B GC/MS/DS system and accessories, in response to your Request for Quotation.

If you have further questions or require additional information, please contact Ron at (312) 310-0140. A copy of this quotation has also been forwarded to the regional sales and service office in your area.

Thank you for your interest in Finnigan MAT instrumentation.

Sincerely yours, Finnigan MAT

Sharon Keeley

Order Processing Specialist

Enclosures

cc:

Ron Skinner (312) 310-0140

Bob McClure Northeast Zone Manager

Terry O'Donovan (301) 948-1067 EASTERN ZONE OFFICE Rockville, MD 20850 Finnigan Corporation d/b/a Finnigan MAT 355 River Oaks Parkway San Jose, CA 95134 (408) 433-4800 Telex: 470745

Telefax: (408) 433-4823 Cable Address: FINISTRO



QUOTATION

\$ 195,000.

Submitted to:

City of Fort Wayne Department of Purchases Number One East Main Street Fort Wayne, Indiana 46802

Attn: Mr. Neil Wisler Re: RFQ No. 003235, Due: 07/08/87 at 4:00 pm

IN RESPONSE TO YOUR REQUEST WE ARE PLEASED TO QUOTE AS FOLLOWS

REFERENCE NO.	SHIPMENT	F.O.B.	TERMS	DATE	QUOTATION NO
RFQ	90-120 ARO	Destination	See Page Four	07/06/87	16015
TEM QTY.		ATALOG UMBER	DESCRIPTION	UNIT PRICE	TOTAL

1/ea 4515B Finnigan MAT Model 4515B Quadrupole \$195,000. GC/MS/DS Gas Chromatograph/Mass Spectrometer with Turbomolecular Pumped Vacuum System and Automated by a SuperIncos Data System. (Includes installation and 90-day warranty.) 60 Hz. Complete with the following components:

GC/MS System:

1.

- a. Data System controlled, multiple-methods gas chromatograph with multilinear and subambient temperature programming, independently heated injector for Grob-type splitless and split injection into glass or fused silica capillary columns.
- b. Direct capillary interface terminating at the ion source.
- c. Quadrupole analyzer and electronics with mass range from 4 to
- d. Switchable CI/EI source, with pre-settable source parameters optimized for each mode, interchangeable ion volumes and feedback temperature controller.
- e. Programmable solids probe with feedback-controlled, multi-linear programming capabilities and subambient cooling.
- f. Pushbutton operated, digital readout vacuum and temperature control module featuring autoranging ion gauge readout and system protection against water, vacuum and power failure.

Continued on Page 2...

Quotation Firm

for 90 days

Finnigan Corporation d/b/a Finnigan MAT

Denhis Of Sales Manager San Jose Field Operations

28/ODEX KIETEKKE MICHEMOOCH BINAKEN MET AND EEN EN MENTROMB

No. 16015 Page 2 of 5



EM	QUANTITY	CATALOG NUMBER	DESCRIPTION	UNIT PRICE	TOTAL PRICE
	g.	Analog monitor for interactive diagnostics, and manual and da			
		scan display.			
	h.	Direct reading mass markers for			
	i.	Digital temperature readout (C	C oven/solids probe).		
	j.	Continuous dynode electron mudynode.	altiplier detector with 3 kV co	onversion	
	k.	Turbomolecular pumped vacuum inlet pump.	m system with mechanical for	repumps and	
	SuperInco	s Data System:			
	a.	5-slot minicomputer with 64 ki			
		processing unit and IDOS II for		neous	
		acquisition/processing) operati			
	b.	Winchester type disk drive with			
	c.	A 1/4 inch streaming tape driv	e with 20 megabytes capacity	7.	
	d.	Mass spectrometer interface c	onsisting of digital scan contr	ol and	
		integrating acquisition;	tashed keyboard for data dian	low and/on	
	e.	Video display terminal with de			
	C	processing, mass spectrometer	control, and data system ope	ration.	
	f.	150 lpm printer/plotter.	me for guadaunale CC/MC do	to oppuiditie	E**.
	$\mathbf{g}_{ au}$	Complete set of GC/MS progra	ims for quadrupole GC/MS da	ta acquisitio)11
		and processing.			
	h.	Complete software diagnostics	раскаде.		
2.	1/ea	121 Packed Column Kit, i	ncluding	5,500.	5,500.
		injector, carrier-gas control ar			
3.	1/ea	122 On-column capillary i		2,000.	2,000.
		accepts 0.20 mm to 0.32 mm i. capillary columns.	d. glass or fused silica		
		ouplifully columns.			
4.	1/ea	151 Refrigerated Recircu	lating Water Cooler	1,650.	1,650.
		220V 60Hz, for 4515,4615, TSG	2-45B and TSQ-45B and 46C.		
5.	2/ea	146 Buck/Boost Transform	ner (2/ea) required for	300.	600.
	2,00	all 4500, 4600, 5100 and TSQ 4			
		voltage is outside 220 VAC±10			
		TSQ 70 with GC. (1/ea) requir			
		Systems. Buck/Boost Transfor			
		recommended for all systems.	,		
c	1/05	102 Autocomplon An out	ometia sempling device	11,000.	11,000.
6.	1/ea	193 Autosampler. An aut for syringe injection of liquid s	omatic sampling device	11,000.	11,000.
		9 0 0	_		
		up to 60 vials. Including moun	ung nardware for 4500 Series		
		GC/MS automated system.			

No. ___16015 .___ Page ___3 of 5



CONTINUATION OF QUOTATION, SCHEMERICAX TOX ATTERMEN & MOTOR DE CONTINUATION OF QUOTATION, SCHEME CAX TOX ATTERMEN & MOTOR DE CONTINUATION OF QUOTATION,

ITEM	QUANTITY	CATALOG NUMBER	DESCRIPTION	UNIT PRICE	TOTAL PRICE
7.	1/ea	423 Pulsed Positive Ion/Nega Ionization (PPINICI). Includes sour electronics for generation and coll negative ions.	ce and detection	11,500.	11,500.
8.	1/ea	951 9-month Extended Warra 4510B, 4515B, 4610B, 4615B, or TS	nty for Models	11,700.	11,700.
9.	1/ea	670N Data Link package for IB communication to NOVA-based coprimary terminal or act as second which has second terminal hardwa	terminal on system	1,000.	1,000.
10.	1/ea	682 Q/A DataMaster Softwar (Requires 670 or 670N) Includes s	e. oftware and manuals.	4,000.	4,000.
11.	1/ea	T903 4500/4600 Series GC/MS. Course. (Course for one person, to the Finnigan MAT Institute, Cinci Course Voucher will be issued by I for each course purchased. A class by the Voucher holder within 6 moshipping date.	nition only, to be held at nnati, Ohio.) A Training Finnigan MAT Institute as date must be scheduled	1,550.	1,550.
12.	1/ea	T904 SuperIncos Data System Training Course. (Course for one p held at the Finnigan MAT Institut Training Course Voucher will be is Institute for each course purchase scheduled by the Voucher holder w instrument shipping date.	person, tuition only, to be e, Cincinnati, Ohio.) A ssued by Finnigan MAT ed. A class date must be	1,550.	1,550.
13.	1/ea	T909 4500/4600 Series Board I Course. (Course for one person, to the Finnigan MAT Institute, Cine Course Voucher will be issued by for each course purchased. A cla by the Voucher holder within 6 m shipping date.	uition only, to be held at innati, Ohio.) A Training Finnigan MAT Institute as date must be scheduled	1,550.	1,550.
14.	1/ea	SPCL-T912 4500 Electronics Couperson, tuition only, to be held at Institute, Cincinnati, Ohio.) A Tiwill be issued by Finnigan MAT Ir purchased. A class date must be holder within 6 months of instrum	the Finnigan MAT raining Course Voucher astitute for each course scheduled by the Voucher	1,550.	1,550.

No. ___16015 4 of 5 Page_



CONTINUATION OF QUOTATION, SWENESWIXX YERMOX WISTERNOVICENS

ITEM	QUANTITY	CATALOG NUMBER	DESCRIPTION	UNIT PRICE	TOTAL PRICE
15.	1/ea	T917 SuperIncos: Quanti (Course for one person, tuiti Finnigan MAT Institute, Cinc Course Voucher will be issue for each course purchased, by the Voucher holder within shipping date.	on only, to be held at the cinnati, Ohio.) A Training d by Finnigan MAT Institute A class date must be scheduled	1,100.	1,100.
16.	1/ea	Institute, Cincinnati, Ohio.)	A Training Course Voucher AT Institute for each course st be scheduled by the Voucher	700.	700.
17.	1/ea	40005-60082 Spares Kit 400	0/4500.	537.	537.
18.	1/ea	40005-60083 4500 PM Kit.		1,760.	1,760.
19.	1/ea	40005-60084 Spares Kit, 45	00 Analyzer.	784.	784.
20.	1/ea	96100-62010 Spares Kit, 96	10 GC.	137.	137.
21.	1/ea Subtotal,	SPCLS-30259: Isobutane Gas Regulator. Methane Gas Regulator. Ammonia Gas Regulator. Item #21:		150. 250. 450. 850.	850.
22.	1/ea Subtotal	SPCLS-30260: Heated Carrier Gas Scrubbe 1/4" - 1/8" Packed Column Item #22:	er. Conversion Kit.	600. 150. 750.	750.
23.	1/ea	837 AutoQuan TM softward programs for reverse life forward library search, isot multiple data file processing software and 35 or 70 mega.	g. Operates with standard	5,000.	5,000.
24.	1/ea	F.O.B. Destination, Freight	& Insurance.	2,000.	2,000.
	TOTAL	QUOTATION:			\$ 263,768.

PAYMENT TERMS
90% of invoice Net 10 Days of receipt of invoice and prior to installation with the balance of 10% Net 30 Days upon acceptance. Payment Terms are subject to credit approval.

16015 5 of 5 Page



CONTINUATION OF QUOTATION, SUBJECTIVEX TERMEN MISTERNAL SUBJECT SUBJEC

TOTAL UNIT CATALOG DESCRIPTION PRICE PRICE ITEM QUANTITY NUMBER

NOTE:

The prices referred to in this quotation are for delivery, installation and warranty in the United States only.

The prices referred to in this quotation include installation and demonstration of standard Finnigan performance specifications as detailed in the product data sheet. Demonstrator of other performance specifications require special arrangements and will be quoted separately upon request.

NOTE

An IBM PC/XT or PC/AT supplied by the customer is required to operate DataMaster and Formaster II. The Personal Computer must have the following minimum features:

512 Kbyte main memory. 8.

- Monochrome display unit capable of graphic display and 640 by 200 resolution b. (Amdek 310-A or equivalent).
- Genoa Spectrum Graphics display board (Finnigan MAT P/N 00012-50851). C.
- Graphics printer with 160 cps print speed (Epson FX-80 or equivalent). d.
- IBM PC DOS revision 2.1, with BASIC extension. e.
- One 360 Kbyte floppy disc drive and floppy disc adapter board. f.
- One 10 Mbyte Winchester disc drive and Winchester adapter board. g.

ADDITIONAL NOTES

- Finnigan MAT requires that for products with software, Buyer must sign Note 1: a "Non-Exclusive License Agreement" ("Agreement") which (i) is a part of Finnigan MAT's lease agreement with the National Bureau of Standards, in order to provide Buyer with the NIH/EPA/MSDC mass spectral data base, and (ii) to provide for the nondisclosure of Finnigan MAT's proprietary software and documentation to outside interests without restricting Buyer's full use of the system. An original example of this license agreement is included with this response. Corporation requires that this agreement be executed by customer and returned prior to shipment of the instrument.
- Site preparation/supplies such as carrier gas, cooling water, electrical Note 2: and air conditioning are the responsibility of the Buyer. (Specifications are available upon request).

FORM #FWPO-2

REQUEST FOR QUOTATION City of Fort Wayne

DEPARTMENT OF PURCHASES NUMBER ONE EAST MAIN STREET ROOM 350 FORT WAYNE, IN 46802 PLEASE INDICATE THIS NUMBER ON ALL CORRESPONDENCE

QUOTE

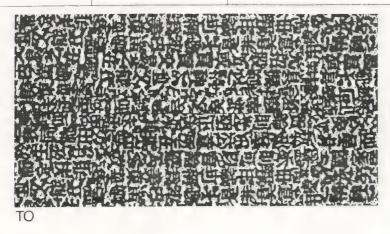
003235

DATE OF REQUEST

Quotations

Sealed Bids WILL BE RECEIVED AT THIS OFFICE UNTIL

PAG



The Contractor and his sub-contractors, if any, shall not discriminate against any employee or applicant for employment, to be employed in the performance of this contract, with respect to his hire, tenure, conditions or privileges of employment or any matter directly or indirectly related to employment, because of his race, color, religion, national origin or ancestry. Breach of this covenant may be regarded as material breach of the contract.

REQUEST FOR QUOTATION THIS IS NOT AN ORDER

PLEASE QUOTE BELOW LOWEST PRICES, WHICH MUST INCLUDE ALL DELIVERY CHARGES (INCLUDING FREIGHT, PARCEL POST AND EXPRESS) UNLESS OTHERWISE SPECIFIED, FOR PURCHASING MERCHANDISE OR SERVICE DESCRIBED BELOW.

QUOTATIONS WILL BE OPENED IN ACCORDANCE TO RULES AND REGULATIONS ON THE REVERSE SIDE OF THIS SHEET. RESPECTFULLY,

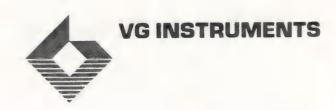
QUANTITY UNI	T DESCRIPTION	UNIT PRICE	TOTAL
-			
	TRIO-2	FURCHESING	RECEIVED
	See Quotation 1634. Included	Cn Cn	
	○ 書かきま ▼ Up ** to be to be 10 ** ** ** ** ** ** ** ** ** ** ** ** **		
	TOTAL PRICE DELIVERY 3.4 Months F.O.B. Dostination	W	

THIS IS ONLY AN INVITATION TO QUOTE AND NOT AN ORDER. THE ABOVE QUOTES ARE SUBMITTED IN ACCORDANCE WITH THE REGULATION ON THE REVERSE SIDE OF THIS SHEET.

SIGNATURE OF BIDDER:

In L Roley

DATE: 4/17/87



VG Instruments Inc., 3552 Creekside Dr., Ann Arbor, Michigan 48105, (313) 996-4046

July 3, 1987

Mr. Neil Wisler City of Fort Wayne Department of Purchases One East Main Street, Room 350 Fort Wayne, Indiana 46802

Dear Mr. Wisler:

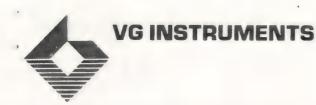
In response to your Request for Quotation No. 003235, please find enclosed my Quotation No. 1634 for a VG TRIO-2 GC-MS System. I have also included a detailed response to the technical specifications which you provided. As noted in the technical response, some of the accessories which have been quoted may be purchased at a more reasonable price from sources other than VG. VG fully supports TEKMAR GC inlet accessories and all Hewlett Packard accessories for the HP 5890 GC.

Please call if I can be of further assistance. If I am not available and you require immediate attention, then call Mr. Leo Gorman at 1-800-248-7077. Thank you for considering VG Instruments for your laboratory needs.

Sincerely,

Tim Riley

Midwest Sales Representative



QUOTATION

DATE July 3, 1987

OUR QUOTATION NO. 1634

page 1 of 5

YOUR REFERENCE NO. 003235

Atten: Mr. Neil Wisler
City of Fort Wayne
Department of Purchases
One Main Street, Room 350
Fort Wayne, Indiana 46802

ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	EXTENSION
	7.0	QUOTATION FOR A VG TRIO-2 QUADRUPOLE MASS SPECTROMETER AND INTEGRATED DATA SYSTEM		
1	1 ea.	Basic TRIO-2 Quadrupole Mass Spectrometer including: Quadrupole mass analyzer 2 to 1000 amu mass range 2.5M mass resolution Low resolution quadrupole prefilter to minimize rod contamination EI/CI sensitivity specification: 1.0 nanogram of methyl stearate injected onto a capillary column to give a peak 3 sec. wide at half height produces a S/N of 100 to 1 on the molecular ion (298) in EI when scanned at 300 amu/sec and 2.5M resolution. Under the same conditions, a S/N of 50 to 1 is obtained on the pseudomolecular ion (299) in CI mode. High sensitivity combined EI/CI ion source Negative and positive ion facilities Computer controlled alternate positive/negative ion scanning Manually controlled triple CI reagent gas inlet Direct insertion probe (water-cooled and fast heating from 35°C to 450°C, computer-controlled multiple temperature ramp programming) Computer controlled inlet for introducing reference standards Direct capillary heated GC inlet and temperature controller Hewlett Packard Model 5890 Gas Chromatograph including: HP capillary split/splitless injector with MS Data System control of vent valve Liquid nitrogen subambient temperature control Pneumatic and temperature controls	\$205,400.00	

QUOTATIONS FIRM FOR 90 days

TERMS

90% within 15 days after delivery

10% within 15 days after acceptance

SHIPMENT

3-4 months ARO, FOB Destination

BY: Tim Riley

FOR FURTHER INFORMATION CONTACT:

3552 Creekside Dr. Ann Arbor, MI 48105

313-996-4046

QUOTATION

ITEM	OHANTITY	DESCRIPTION	UNIT PRICE	EXTENSION
ITEM	QUANTITY	Hewlett Packard Gas Chromatograph (Continued): RS232 Interface for data system control of gas chromatograph HP installation kit with one 12.5m OVI capillary column, and start-up supply of consumable items 58V conversion dynode off-axis photomultiplier detector Digital interface display unit (mass, source and probe temperature, and source, trap and filament currents) Analog oscilloscope display unit Vacuum system including: 316 liter/sec source diffusion pump 135 liter/sec source diffusion pump 136 liter/sec source diffusion pump 137 Liter/sec analyzer diffusion pump 138 liter/sec source diffusion pump 139 Liter/sec source diffusion pump 140 Edwards E2M8 and one E2M2 rotary pumps for main vacuum and inlet system Bayard-Alpert ion gauge for source and analyzer regions 150 Tvania gauges for main vacuum foreline and inlet system 150 Automatic source/pump and analyzer/pump isolation valves 150 for vacuum protection and automatic pump down 150 Automated protection system (pressure, temperature, power, RF supply) 150 Spare parts kit 150 latin transformer 150 Une complete set of schematic diagrams and instruction 151 manuals 152 VG Integrated Mass Spectrometer Data System including: 153 Digital Equipment Corporation PDP 11/73 Minicomputer with: 155 Louis megabyte of memory (16 bit words) 156 RSXIIM-PLUS multitasking DEC operating system 150 Floating point hardware 155 CVSV21 16 color memory-mapped visual display interface 155 CVSV21 16 color memory-mapped visual display interface 155 MEZ41 color monitor 155 MEZ Sampling rate 156 Liter/sampling rate 157 Direct memory access to PDP 11 for fast data transfer 158 Interscan autoranging 159 Dynamic range for peak height measurements: 158 Sp500 to 1 without interscan autoranging 1500,000 to 1 with interscan autoranging		EXTENSION
		page 2		



QUOTATION

ITEA	OHANTITY	DECORIDATION	LINIT DRICE	EVTENCION
HEM	QUANTITY	DESCRIPTION	UNIT PRICE	EXTENSION
		Acquisition Interface (Continued): Dynamic range for peak area measurements within a scan is 8,000,000 to 1 Continuous acquisition rate of 6000 amu/sec Built-in diagnostic features 16 digital output lines 8 digital input lines 4 multiplexed analog inputs monitored by a 12 bit A/D converter which may be accessed at a rate up to 1 kHz which may be used to monitor GC and LC detector signals		
		Microprocessor controlled scan generator providing scan rates up to 6000 amu/sec		
		Diagnostic software tape including DEC diagnostics Backup system and library tape One blank tape		
		Full compliment of TRIO-2 software including: MASCOT (Menu Assisted System Control and Operator Tutor) MS and GC/LC-MS acquisition and mass measurement facilities Mass calibration and reference file editing facilities Comprehensive mass chromatogram and mass spectra display and manipulation capability Continuum and multichannel analyzer mode acquisition facilities		
		Selected Ion Recording facilities Automatic and interactive quantitation facilities EPA Target Compound Analysis quantification facilities Spectral enhancement, averaging and subtraction facilities Plotting and spectral listing GC control facilities		
		Library editor and library search (NBS library with 42,261 complete spectra) MACRO editing facilities "RUN" module for user-defined automation of data processing and instrument control Utilities (file and disk copy, file delete, file list, disk initialization)		

page 3



QUOTATION

ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	EXTENSION
		OPTIONAL ACCESSORIES		
2	1 ea.	Upgrade the mass range from 1000 amu to 2000 amu.	\$7,500.00	
3	1 ea.	Hewlett Packard Model 7673A GC Autosampler with 100 Sample Carousel.	\$8,600.00	
4	1 ea.	Alternating EI/CI Scanning Capability (Super ACE).	\$6,850.00	
5	1 ea.	Replace source and analyzer diffusion pumps with Balzers 330 and 170 liter/sec Turbomolecular Pumps.	\$14,625.00	
6	1 ea.	Refrigerated Recirculating Water Chiller (Note this Item is not required if Optional Item 5 is purchased).	\$4,000.00	
7	1 ea.	Regulators for isobutane, methane, and ammonia (price per regulator).	\$325.00	
8	1 ea.	Heated Carrier Gas Scrubber.	\$600.00	
9	1 ea.	On-Column Capillary GC Injector.	\$1,500.00	
10	1 ea.	Packed GC Column Injector Conversion Kit, Carrier Gas Control, and All-Glass Jet Separator.	\$4,200.00	
11	1 ea.	Factory training for one person covering Mass Spectrometer Data System, and EPA Target Compound Analysis Software Operation (One Week).	\$1,500.00	
12	1 ea.	Factory training for one person covering Mass Spectrometer and Data System Electronics Maintenance.	\$1,500.00	
		page 4		



QUOTATION

ITEM	QUANTITY	DESCRIPTION	UNIT PRICE	EXTENSION
ITEM	QUANTITY	NOTES: 1. The price includes instrument installation, performance check, and demonstration in the Customer's Laboratory. The installation must be done by qualified VG Engineers. 2. The price includes a full one-year warranty on the complete system covering parts (excluding consumables) and labor. The warranty begins on acceptance of the performance specification. Software updates will be provided at no charge for two years from the time of instrument acceptance. A telephone credit card for toll-		EXTENSION
		 free factory assistance is provided during the instrument warranty period. 4. The price includes five days of on-site operator training following instrument installation. 5. The price includes import duty, but not State or local taxes. 6. Past due balances shall be subject to a service charge of 1.5% per month (18% per annum), but not more than the amount permitted by law. 		
		page 5		

VG INSTRUMENTS DETAILED RESPONSE TO TECHNICAL SPECIFICATIONS CITY OF FORT WAYNE RFQ NO. 003235

A. GAS CHROMATOGRAPH - Hewlett Packard Model 5890.

- 1. GC parameters may be controlled automatically from the data system or manually from front panel controls on the GC. During a GC-MS acquisition, GC parameters can only be changed manually from the front panel controls on the GC.
- 2. No Exception.
- No Exception. 3.
- 4. No Exception.
- 5. No Exception.
- 6. No Exception.
- Injector split ratios are controlled manually. The injector sweep valves may be controlled from the MS Data System.
- No Exception.

B. GC/MS INTERFACE

- No Exception.
- The TRIO-2 GC interface is designed only for fused silica capillary columns, not glass capillary columns - otherwise, no exception.
- No Exception.
- 4. No Exception.

C. MASS SPECTROMETER

- 1. Mass Analyzer
 - a. Accepted.
 - b. No Exception.
 - c. No Exception. Many sets of tuning parameters may be stored on the data system for each ionization mode which have unique features like resolution.
 - d. The standard system is capable of alternate scan negative and positive ion analysis using optimized tuning in any ionization mode. In addition, the system is capable of alternate EI/CI scanning if the optional feature is purchased.
 - e. No Exception.
 - f. Oscilloscope 10,000 amu per second. Data System - 6,000 amu per second with up to 40 sampling intervals per atomic mass unit.
 - No exception.
- Oscilloscope Display
 - a. No Exception. Up to four mass ranges with independently chosen mass spans and gain factors may be displayed on the oscilloscope
 - simultaneously. c. No Exception.

- d. No Mass Marker is displayed on the oscilloscope. The Data System tune parameters describe the value of the mass being displayed on the oscilloscope and the tuned mass of the quad is shown on a digital display meter.
- 3. Digital Display Meter

a. No Exception.

- b. This information is stored in the data system along with the acquired data file. It is readily recalled to check the scan conditions and it is also archived for later review.
- c. Tuned mass, trap current, source temperature, and probe temperature are displayed on a digital display. Photomultiplier voltage, and all adjustable analyzer lens and source voltages are stored on the data system along with the acquired data as part of the tune parameter set and may be recalled for examination at any time.

4. Ion Source

- a. The combination EI/CI ion source is easily switched between ionization modes via a mechanical adjuster external to the source vacuum housing. VG does not use interchangeable ion volumes.
- b. No Exception.c. No Exception.
- d. Ion source temperature is continuously adjustable to greater than 300°C.
- e. No Exception.
- f. Source housing and analyzer housing pressures are independently displayed on an analog ion gauge display.
- g. No Exception.h. No Exception.
- i. The system will accept a solids insertion probe, a direct exposure (DCI/DEI) probe, and thermospray LC-MS interface, but not a belt interface.
- j. Discharge ionization (Plasmaspray) is standard on the VG thermospray ionization interface.

5. Detector.

- a. VG no longer uses continuous dynode electron multipliers. They have been replaced with photomultiplier detectors which provide increased dynamic range, a three-fold increase in negative ion sensitivity, greatly improved long-term stability, and a very extended lifetime. The photomultiplier is enclosed in its own glass envelope and is not poisoned by atmospheric gases when the analyzer is vented to atmosphere or by exposure to sample ions. The detector lifetime is rated at greater than five years. The multiplier is controlled via the data system tune page.
- b. No Exception.

- 6. Direct Probe Sample Inlet
 - No Exception. a.
 - No Exception. b.
 - No Exception.

D. VACUUM SYSTEM

- The standard high vacuum pumps are Edwards Diffstaks. See Item 6 on Quotation 1634 for turbomolecular pump option prices. Note that a 170 liter per second turbomolecular pump is adequate to pump the
- Analog displays of high vacuum and forepressure regions are provided.

- Reagent gas selection and routing is manual actuated. Line evacuation is actuated by a push button control.
- The system is designed to introduce the CI reagent gas into the mass spectrometer source independent of the GC carrier gas stream.
- No Exception.

E. DATA SYSTEM

1. Minicomputer

a. 1.0 megabyte of memory is standard. This is expandable to 4 megabytes.

b. No Exception.

2. Mass Spectrometer Interface

VG uses a 16-bit A/D Convertor with a 4 microsecond sampling time (250 kHz sampling rate) for data acquisition.

Scan speed of 6000 amu/sec into the data system with up to 40 samples across each amu.

3. On-Line Storage Media

a. DEC RD53 Winchester with 71 megabytes of formatted space.

DEC TK50 Streamer Tape with 95 megabytes capacity.

Optional DEC TSV05 Nine-Track Tape System with 40 megabyte capacity.

3. Keyboard Video Display Terminal

a. DEC VR241 High Resolution Color Terminal with DEC VS21 high speed direct memory access interface.

Printer/Plotter.

- a. Printronix MVP2 High Resolution Dot Matrix Printer/Plotter with 200 lines per minute print speed.
- b. Plot size is user selectable.

5. Software.

- a. True foreground/background multitasking as well as midground operation for spooled background subtraction, library searching, plotting, etc. simultaneously with foreground and background multitasking.
- b. 1. No Exception.

m. No exception other than that reverse search capability is only provided for in the target compound quantitation software.

n. No Exception.

- o. No Exception, however it should be noted that <u>no</u> quadrupole mass spectrometer provides sufficient mass accuracy to reliably determine molecular formulas.
- p. Software diagnostics are provided for calibration curve fit and for all DEC hardware and VG acquisition and scan interfaces.
- q. Inter-data system communications can be accomplished via an optional serial interface or via an optional DECNET/ETHERNET high speed communications network.

r. No Exception.

F. GENERAL ITEMS TO BE INCLUDED WITH THE SYSTEM

- Accepted.
- 2. Accepted.
- 3. Accepted.
- 4. Accepted.
- 5. One year from time of acceptance as noted in Section I.

G. SYSTEM PERFORMANCE SPECIFICATIONS

- 1. No Exception.
- 2. No Exception.

H. ACCESSORIES

1. Quoted, but not required if turbomolecular pumps are selected.

2. Included as standard hardware.

3. HP 7673A Autoinjector with 100 sample carousel quoted. This accessory includes mounting hardware for a HP 5890 GC.

Included as standard.

5. A start-up supply of consumable hardware is provided.

6. Quoted, but the customer is advised that these items may be purchased at a reduced cost from other sources.

7. Quoted, but the customer is advised that these items may be purchased at a reduced cost from other sources.

8. Quoted, but the customer is advised that these items may be purchased at a reduced cost directly from Hewlett Packard.

9. Quoted.

10. Quoted, but the customer is advised that these items may be purchased at a reduced cost from other sources.

11. Included as standard.

- 12. VG's equivalent EPA Target Compound Analysis Software is included as standard.
- 13 14. Tuition for training courses quoted as options. Travel and lodging costs associated with factory training is approximately \$1,200 to \$1,500 per person.

I. WARRANTY

1. Accepted.

FORM #FWPO-2

REQUEST FOR QUOTATION City of Fort Wayne

DEPARTMENT OF PURCHASES NUMBER ONE EAST MAIN STREET ROOM 350 FORT WAYNE, IN 46802

PLEASE INDICATE THIS NUMBER ON ALL CORRESPONDENCE

003235

DATE OF REQUEST

Quotations

Bids

WILL BE RECEIVED AT THIS OFFICE UNTIL



The Contractor and his sub-contractors, if any, shall not discriminate against any employee or applicant for employment, to be employed in the performance of this contract, with respect to his hire, tenure, conditions or privileges of employment or any matter directly or indirectly related to employment because of his race, color, religion, national origin or ancestry. Breach of this covenant may be regarded as material breach of the contract.

REQUEST FOR QUOTATION THIS IS NOT AN ORDER

PLEASE QUOTE BELOW LOWEST PRICES, WHICH MUST INCLUDE ALL DELIVERY CHARGES (INCLUDING FREIGHT, PARCEL POST AND EXPRESS) UNLESS OTHERWISE SPECIFIED, FOR PURCHASING MERCHANDISE OR SERVICE DESCRIBED BELOW.

QUOTATIONS WILL BE OPENED IN ACCORDANCE TO RULES AND REGULATIONS ON THE REVERSE SIDE OF THIS SHEET RESPECTFULLY,



TOTAL UNIT PRICE QUANTITY UNIT DESCRIPTION 0) PRICES YOUR BE BELL MERY FOR THOSE (% SONTES TOTAL PRICE \$237,718 DELIVERY F.O.B.

THIS IS ONLY AN INVITATION TO QUOTE AND NOT AN ORDER. THE ABOVE QUOTES ARE SUBMITTED IN ACCORDANCE WITH THE REGULATIONS ON THE REVERSE SIDE OF THIS SHEET.

SIGNATURE OF BIDDER:

DATE: 6/25/87



Quote Number: 1580-4E

CITY OF FORT WAYNE

Quote Date: JUN 25, 1987 Last Revised: 06-25-87 16:52

> PAGE 1 OF

Customer:

CITY OF FORT WAYNE

DEPARTMENT OF PURCHASES ONE MAIN ST., ROOM 350 FORT WAYNE, IN 46802 ATTN: MS. CAROL OFFERLE

HP Contact:

KERRY H EVEN

Hewlett Packard Co. 4501 Erskine Rd. Cincinnati, OH 45242 (513) 891-987(

Terms:

NET 30

All prices are for U.S.A. end use only.

All prices are firm for 30 days.

FOB:

Destination

Flease Submit Purchase Order to:

Hewlett Packard Co. 4501 Erskine Rd. Cincinnati, OH 45242

(513) 891-987(

Authorizing Signature:

Datright signed by BRANCH BUSINESS MANAGER



Quote Number: 1580-4E

CITY OF FORT WAYNE

Quote Date: JUN 25, 1987 Last Revised: 06-25-87 16:52

PAGE 2 OF 8

Item _	Oty	Product Opt Suffix <u>Description</u>	Unit Price	Extended Price
0100	1	5890A		5,200.00
0100	*	Gas Chromatograph Mainframe.		5,200.00
		Delivery = 9 weeks		
	1	5890A 107		1,400.00
		Capillary Inlet System for Split/Split-		-,
		less operation. Includes two flow con-		
		trollers for total flow and septum purge		
		30 psig gauge, and back pressure regu-		
		lator.		
		Delivery = 9 weeks		
	1	5890A 114		900.00
		On-Column Capillary Inlet. Includes		
		flow controller for total flow, 30 psig		
		gauge, and back pressure regulator. Use		
		with all Fused Silica columns and glass columns up to 1 mm O.D.		
		Delivery = 9 weeks		
		war vary — / wath a		
	1	5890A 201		410.0
		No detector, 5890A to be used with Mass		
		Selective Detector. Includes capillary		
		column, uses one detector postition.		
		Delivery = 9 weeks		
	1	5890A 570		850.46
		HP-IB Data Communications. Includes		
		Inet board, HP-IL to HP-IB converter,		
		and bracket for converter.		
		Delivery = 9 weeks		
	1	5890A 056		300,4
		N2 Cryogenic Oven Control.		
		Delivery = 9 weeks		
200	1	7673A		0.00
	•	Auto Injector for Gas Chromatograph		O I O
		Configuration option must be specified.		
		Delivery = 10 weeks		
	1	7673A 201		7,500.0
	•	Robotic arm automatic sampler with 100		,,000,00
		sample capacity for HP 5890A GC.		
		Features random access, fast injection		
		technique and self-alignment mounting.		
		Sampler controlled by HPINET integrator.		
		Delivery = 8 weeks		



Quote Date: JUN 25, 1987 Last Revised: 06-25-87 16:52

PAGE 3 OF 8

Item	<u>Qty</u>	Product Opt Suffix Description	Unit Price	Extended Price
0300	1	59913A Field installed Glass Jet Sepr for 5970B MSD and 5988A GC/MS. Installed on 5890A GC only. Inclds 2CFM pump and vacuum gauge. Reqrs cap.dir.interface. Retrofit may reqr.special intf. Installed, 120VAC Delivery = TBA		6,250.00
	1	59913A 003 For use with 5988A. Deletes mech. pump and vac.gauge for new and existing 5988A w/ ser no prefix 2635A or greater. For earlier 5988A w/ lower ser no prefixes, please consult factory for price. Delivery = TBA		-2,750.00
0400	1	5988A MS core with dual EI/CI source, vacuum system, electronics, 220V 60Hz. Includes capillary direct interface and installation. Must order data system, software and 5890 with options 201 and 570. Delivery = 14 weeks		101,000.00
	1	5988A 002 NEGATIVE ION: INCLUDES ALL NECESSARY hardware for negative ion operation. Delivery = TBA		9,000.00
	1	5988A 030 One half inch port into ion source for use with 1/2" probes. Delivery = TBA		3,000.00
	1	5988A 031 Direct insertion probe kit for solid samples. Must order 5988A opt 030. Delivery = TBA		4,500.00
	1	5988A 100 SUBSTITUTES TURBOMOLECULAR PUMPS FOR standard diffusion pumps. Delivery = TBA		22,000.00



Quote Date: JUN 25, 1987 Last Revised: 06-25-87 16:52

PAGE 4 OF B

Item _	Qty	Product Opt Suffix Description	Unit Price	Extended Price
0500	1	59868A Combined Wiley and NBS Data Bases: with spectra in both abridged and unabridged formats. Requires two non-disclossure agreements. Req one media option. Requires 26 Mbytes disc space. Delivery = TBA		3,000.00
	1	59868A 022 SUPPLIED ON DC600 TAPE CARTRIDGE — compatible with 7912 or 7914 disc drive. Delivery = TBh		0.00
0600	1	18952E FIVE DAY OPERATORS TRAINING COURSE: includes lectures and lab exercises on the operation of the HP 5987/88/96 GC/MS/DS. Attendess are expected to pay for their travel, food, and lodging. Delivery = TB4		1,500.00
0700	1	18952F RTE SYSTEM MANAGER TRAINING COURSE. A five-day seminar covering use of an RTE operating system with GC/MS applications software. Delivery = TBh		1,250.00
0800	1	189525 AQUARIUS TRAINING - 4 DAYS Delivery = TBA		1,200.00
0900	1	59870C A-Series GC/LC/MS Data System hardware for use with 5970A/B, 5995A/B/C, 5985A/B or 5988A MS cores. Must specify computer disc drive, terminal, MS interface & power options. Must also order software. Delivery = TBA		0.00
	1	59870C 110 Micro 14 Computer. Includes HP2424A CPU with 1Mbyte memory, HP-IB interface, 4 avail serial ports, 3 avail I/O slots & 9144A CTU in Design Plus cabinet. NO I/O extender avail. Supports 1 MS core only. Delivery = TBA		12,500.00



Quote Date: JUN 25, 1987 Last Revised: 06-25-87 16:52

PAGE 5 OF

Item _	_Qty	Product Opt Suffix <u>Description</u>		Extended Price
	1	59870C 250 81 Mbyte Disc Storage; Inclues HP7957A Disc Drive, Delivery = TBA		5,200.00
	1	59870C 520 Includes HP72459A Vectra 3000 EGA Model 59 with cable & serial port card. Required for EPA CLP discette compatibil ity. Reflections 7+ terminal emulation SW required. Not for Aquarius reporting. Delivery = TBh		5,770.00
	.1	59870C 325 HP 2934A Graphics Printer; Equipped with RS-232 & can be used as system or terminal printer but only terminal cable supplied. Recommended for high quality graphics & high volume printing. Delivery = TB4		3,140.00
	1	59870C 700 Interface for 5970B, 5995C, or 5988A. Includes scanbox & control HW to interface 5970B with option 410, 5995C with option 410 or 5988A to either option 110 or 120 CPU. Requires 2 CPU I/O slots. Delivery = TBA	6	8,400.00
	1	59870C 903 Power cord for 110V/60HZ US/Canadian use Delivery = TBA		0.00
1000	1	59872C GC/LC/MS A-Series Software. Includes execute only A-Series operating System & GC/LC/MS applications software with Aquarius II & TOP packages & system installation. Requires 40Mbytes disc space. Delivery = TBh		15,000.00
100	1	M41 INSTALLATION CHARGE		405.00
200	1	M42 SERVICE CONTRACT		14,724.00



Quote Number: 1580-4E

CITY OF FORT WAYNE

Ouote Date: JUN 25, 1987 Last Revised: 06-25-87 16:52

PAGE 6 OF 8

Product Opt Suffix Unit Extended

Item Oty Description Price Price

*** GROSS AMOUNT:

\$231,649.01

*** GRAND TOTAL:

\$231,649.00

WARRANTY PERIOD IS 90 DAYS FROM THE DATE OF SHIPMENT. WARRANTY SERVICE INCLUDES REPAIR OF THE DEFECTIVE PRODUCT AT THE BUYER'S FACILITY AT NO CHARGE (IF THE BUYER'S FACILITY IS WITHIN AN HP SERVICE TRAVEL AREA).

DELIVERY TERMS ARE BASED ON OUR CURRENT AVAILABILITY SCHEDULE AND ARE SUBJECT TO CHANGE. THIS QUOTATION AND RESULTANT PURCHASE ARE SUBJECT TO THE ATTACHED TERMS AND CONDITIONS.



Quote Number: 1580-4E

CITY OF FORT WAYNE

Quote Date: JUN 25, 1987 Last Revised: 06-25-87 16:52

PAGE 7 OF 8

2B BASIC SYSTEM MAINTENANCE.
Travel, labor, parts and materials
provided at customer site. Hours and
days of coverage standard as described
in Exhibit 2B of the CSSA.

02B	SUPPORTED IT				MONTH	Y CHARGE A	MOUNTS
	Description				Std Unit	Options	Extended
Item	Product	<u> </u>		Qty _	Charge	Charge Re	f <u>Charge</u>
0100	Gas Chromat	ograph Main	nframe				
	5890A			1	24.00	0.00 A	24.00
	Capillary I	nlet Syste	м				
	5890A	107		1	6.00	0.00 A	6.00
	HP-IB Data	Communicat	ions				
	5890A	570		1	3.00	0.00 A	3.00
0200		AUTOMATIC	SAMPLER	5890	INET		
	7673A	201		1	45.00	0.00 A	45.00
0400	HP MS SYSTE	M					
	5988A			1	556.00	0.00 A	556.00
	NEGATIVE IO	N					
	5988A	002		1	100.00	0.00 A	100.00
	TURBO PUMPS	3					
	5988A	100		1	236.00	0.00 A	236.00
	TOTAL	02B SUPPOR	RT:				970.00

OPTIONS REFERENCE FOR 02B SUPPORTED ITEMS

A: Zone 2: 26-50 miles.



Quote Number: 15804E City of Fort Wayne Quote Date: June 25, 1987

THIRD PARTY ACCESSORIES:

QTY	DESCRIPTION	PRICE
1	SPEC001 51-18A-350/Scott Regulator	\$207.90
2	SPEC002 51-18A-240/Scott Regulator	\$415.80
1	SPEC003 10KWA B.B. Transformer Sharonville Electronic	\$230.79
1	SPEC004 CFT-75 PD-2 PMP/Neslab	\$2,514.75
1	SPEC005 2-1641/Supelco Column	\$480.00



Quote Date:

Ouote Date: JUN 25, 1987 Last Revised: 06-25-87 16:52

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SOFTWARE	SUPPORT	PRODUCTS:
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OUL I ME	IKE SUF	FURI PRUDUCIS:		
Item	Qty	Product Description	MONTHLY CHA	RGE ANDUNTS Extended Price
1300	12	59872E+H22 GC/MS & RPN Response Center Support for HP1000 E-Series systems with CS-80 tape medium. Includes manual updates and media. ROM included.	185.00	2,220.0
	T	OTAL SOFTWARE SUPPORT:		2 220 00



Quote Number: 15804E City of Fort Wayne Quote Date: June 25, 1987

SUMMARY

HARDWARE AND SOFTWARE AND TRAINING - \$216,925.00

HARDWARE SUPPORT CONTRACT - \$14,724,00

SOFTWARE SUPPORT CONTRACT - \$2,220.00

THIRD PARTY ACCESSORIES - \$3,849.24

GRAND TOTAL - \$237,718.24



Quote Number: 15804E City of Fort Wayne Quote Date: June 25, 1987

RECOMMENDED OPTIONS:

QTY	DESCRIPTION	PRICE
1	5988A Opt. 101	\$6,000.00
Note:	Recommended pumping system is the standard diffusion pump configuration. Selecting this option would require removal of 5988A Opt. 100 and it's associated \$22,000.00 charge.	
	Opt. 101 should be added (isolation valves) at \$6,000.00 for a net reduction of the final price by \$16,000.00.	
1 1 1	3392A Integrator Opt. 004 Cables 03392-60910 Cable	\$2,995.00 0.00 \$160.00
Note:	Selection of the above three items will allow upload of separate, existing gas chromatographic information to the data system for incorporation into final reports and data reduction.	
1	68336F RBASE 5000 Database	\$495.00
Note:	Selection of the above item will allow download of mass spectral result files into the RBASE 5000 Database package.	
5 1	19190A On-site Consulting Opt. 003 Travel Charge	\$5,200.00 \$520.00
Note:	Inclusion of the above 2 items will allow method set-up by HP at the customer site. Customer will provide standards and extraction methodologies as well as requirements for data reduction and reporting. This will allow the system to be generating useful results within 3 weeks of installation.	
1	59868A Opt. 005 CAS #'s	\$500.00
Note:	Inclusion of the above item will allow spectra to be pulled from the NBS Libraries by CAS #.	
1	59870C Opt. 510 Color Terminal	\$3,580.00
Note:	Up to 8 extra terminals may be selected for the system.	
1	59870C Opt. 335 Laserjet Printer	\$2,590.00
Note:	Selection of above option will allow near typeset quality for report generation.	

7708

187-07-39

DIGEST SHEET

TITLE OF ORDINANCE: SPECIAL

DEPARTMENT REQUESTING ORDINANCE: PURCHASING

SYNOPSIS OF ORDINANCE:

An ordinance approving City Utilities Purchase order #09126 with respect to the purchase of a Gas Chromatograph/Mass Spectrometer System, per the specifications in Reference #3235, for the Water Pollution Control Plant.

Purchase of equipment is "Subject to financing through the City Equipment Lease Program as provided for in Ordinance S-174-84."

EFFECT OF PASSAGE:

Instrument is used to determine the organic compounds in the waste water and industrial waste through the plant. Testing has just become a requirement of the EPA.

EFFECT OF NON-PASSAGE:

Department will not be able to identify organic compounds (such as PCB's) as required by the EPA.

MONEY INVOLVED (direct costs, expenditures, savings):

Hewlett Packard

\$237,758.24

ASSIGNED TO COMMITTEE (President):

REPORT	OF THE COMMITTEE ON	CITY UTILITIES
WE, YOUR COMMITTEE ON	CITY UTILITIES	TO WHOM WA
REFERRED AN (ORDINANC	E) (RESOLUZION) a	pproving City Utilities
Purchase Order #0912	6, by the City of Fo	rt Wayne, Indiana, by and
		Hewlett Packard, for
the Water Pollution		
		•
	•	
4		
HAVE HAD SAID (ORDINAN LEAVE TO REPORT BACK TO (RESOLUTION) YES		DER CONSIDERATION AND BEG THAT SAID (ORDINANCE) NO
Marin B. Red	CHARLES B. REDD	
12	PAUL M. BURNS VICE CHAIRMAN	
Thom Shurf	THOMAS C. HENRY	
Fallutar.	BEN A. EISBART	
Samuel J. Talariso	SAMUEL J. TALARICO	
DINCURRED IN 8-1/1	7.	SANDRA E. KENNEDY